

MADISON.

FLATTENED FIELDS

**Are the Results of
Yesterday's Sub-
urban Hail
Storm,**

**Which Swept With Devastating
Violence from Badger Prai-
rie to Nine Springs.**

**The Towns of Verona and
Fitchburg the Especial
Victims of the De-
stroyer.**

**Growing Crops Cut off and
Chopped up, Orchards and
Groves Riddled, Pigs and
Chickens Killed and
Window Beaten
In.**

**An Estimated Cash Damage in the
Two Towns, of over \$7,000—
The Effect of the Storm, in
Other Sections.**

IN TOWN.

Yesterday morning, the weather opened clear and moderately cool, with some faint indications of an approaching storm; but, as the day progressed, the western horizon became rapidly overcast, and by half-past one the inkliest of clouds fairly screened the sunlight, gas being needed at dinner in the hotels and most private residences. A heavy wind-storm, blowing 32 miles per hour, passed over the city at 1:45 o'clock, lasting fifteen minutes, followed by an atmospheric lull, a sheeting rain-fall and more or less electric disturbance. The heaviest rain did not visit the town until three o'clock, when the day was as black as during a full solar eclipse, and animals and birds sought rest; the water came straight down, in an undisturbed torrent, and continued for an hour and a half. There was a heavy and variable gale upon the lakes and lake ridges, during this storm, but in the valleys all was still. Clearing weather prevailed through supper and church time, with occasional brief showers, until about half-past nine at night, when the heavy fall recommenced and lasted with only short intervals of cessation, until dawn. Early this morning, there was some electric disturbance, and one lightning bolt, at about four o'clock, buried itself in Third Lake Bay, with a fearful explosion, which probably woke up every person in the city. The flash was exceedingly large and vivid, and came straight down from the heavens.

There was no material damage wrought in the city, except to flower beds which were too heavily wet down. On the lakes, wild storms prevailed, the steamer *Mendota* being out with half a dozen passengers, during the afternoon gale, but she weathered the terrific sea quite gallantly. There was no damage done in our lake waters. Fourth Lake raised $5\frac{1}{4}$ inches during the storm.

IN THE SUBURBS.

a great hail and wind storm, combined, worked terrific devastation in some sections.

The townships of Verona and Fitchburg, southwest of the city, appear to have been the scenes of especial tempestuous violence. It is supposed that the storm track commenced upon section 1, town of Verona, upon what is known as Badger's Prairie; at least, no damaging reports are heard from the country south and southwest of there, and it is known that the towns directly neighboring in those directions escaped. From Badger's Prairie to Nine Springs Marsh, four miles to the east, the storm swept with fearful violence along a path some two miles wide,—the great hailstones, the size of a man's fist, cutting growing crops off close to the ground and chopping up the stalks; riddling and breaking in window sashes; knocking holes through shingle roofs and pine board fences; barking and violently pruning orchards and groves, and strewing the country side with the brush-wood; killing young pigs and barn-yard fowls, and otherwise working vast damage to agricultural interests at a season when the growing crops were at their best and gave the fullest promise.

It is impossible to accurately calculate the damage wrought in these two towns by the work of the hail, but as nearly twenty farms, of various sizes, were more or less stripped of their growing crops, and great harm done to buildings and smaller live stock, an approximate settling-down of \$7,000 would be rather an under than an over estimate.

THE PRINCIPAL VICTIMS, commencing from Badger's Prairie, and following the storm east to the Nine Springs, report as follows:

J. C. RIDEN; the hailstones here were the size of hen's eggs; a few windows on the west side of the house were broken; winter wheat, cutting of

which had partly commenced, was cut up to some extent, and some badly lodged; spring wheat was not damaged materially, except by lodging; barley badly lodged and cut up; the corn crop was torn up or cut off near the ground; the wind was spent before the rain and hail came. Mr. RIDEN reports that the storm was far heavier to the northwest—but at Verona Corners, two miles from his farm, there was but little hail. Some of his neighbors, he says, will not get back their seed, from their wheat fields.

JACOB BENTZ, JAMES KEESHER and Mr. HARTIGAN, had their crops badly tied up.

Mr. HATHAWAY, occupying a farm owned by TIMOTHY BROWN, Esq., of Madison, says that he should not put the reaper into his grain fields, though yesterday morning crops looked as fine as he ever knew them.

HENRY WEST, owning two farms, reports 40 acres of the finest oats he ever saw in Wisconsin—33 years experience—as being cut up beyond possibility of the least recovery.

R. J. ATWOOD, in conversation with a STATE JOURNAL representative, says that the storm struck his place at about three o'clock P. M.; it came accompanied by heavy wind and hailstones the size of a man's fist—Mr. ATWOOD having picked up a bushel of that size inside of a rod rod square. Corn, oats and grass were generally cut down in a path four miles long and two wide. Yearling pigs, turkeys and chickens were killed. Apple trees were barked all over in spots the size of a man's palm, and the lands all around were covered with fruit-bearing twigs and limbs. Fences were not blown down, but had pieces knocked out of them, here and there. Holes were knocked through new shingle roofs, and for half an hour things were flying around lively.

HENRY MILLER, tenanting Hon. N. B. VAN SLIKE's farm, reports general destruction to all his crops.

Peter Hamaker (who lost 50 acres of corn), William Kelly, William Bailey, Joseph and James O'Brien, Mrs. Mahr, Mrs. Dunkler, Carl Fergen, Frank Grady, Thomas Dunn, Dennis McKee, Jim Grady, Andrew Mann, Samuel Miles and Thomas Simon, are all victims to a greater or less extent.

Glass was broken, in the houses of Mrs. Mahr and the O'Brien's. At Mrs. McKinney's, whole sashes were broken in, and R. J. Atwood also sustained a heavy loss in this direction; Mr. Atwood reports the loss of 80 acres of oats and wheat, 30 acres of tame hay and 30 acres of fine corn. Henry West says that yesterday morning he would not have sold his crop, standing, for \$1,000; to-day, he would take \$100. These gentlemen report occasional breaks in the storm path, but its course in general was as marked out, and wherever the hail struck, complete devastation followed.

GEORGE C. RUSSELL, Esq., Secretary of the Dane County Agricultural Society, who lives near Judge BRYANTS, across Third Lake Bay, had the windows in the west side of his house quite generally broken in.

Many householders in the city report their cellars filled with water. Three and seventy-two hundredths inches of rain fell during the storm, which amount was added to, early this afternoon, by an additional short but heavy shower, also accompanied by wind and some hail.

ON FOURTH LAKE,

yesterday afternoon, there was a wild storm. The steamer *Mendota* had on board some seven or eight passengers, and was in the center of the lake, when the first squall struck. It became so black, that it was hardly possible to see from one end of the craft to the other; the wind blew great guns, and at times seemed to fairly lift the vessel from the water; but she rode through the blinding tempest right gallantly. Captain PATTERSON kept her out to sea as far as was possible, in the pitchy darkness. It is thought that it was the most violent storm the steamer was ever out in, but "Pat" had the greatest confidence in the craft, and at no time experienced the least anxiety, though the nervousness of the passengers, particularly of one old sportsman, who had frequently desired

the Captain to "call and take him out" when there was to be a big storm on Fourth Lake,—was at times painful to behold.

The *Solid Comfort* hunting barge had anchored off McBride's Point, the evening before, with a party on board, who had a desire to sit off in the shade, Sunday, and avoid town heat and mosquitoes; when the storm gave evidences of coming up, her captain sailed her over to the Asylum shore, and got her anchored just in time to see the tempest strike McBride's with full force. At night, the steamer towed her home, getting her into dock just before the second storm arrived.

None of the yachts or town shipping or piers were injured.

The wind on the lake, all day and night, flitted from north to southwest, with ever-varying gusts.

Reports of the loss of a lady and gentlemen in an open sail-boat, in the afternoon, were unfounded.

INCIDENTS.

A STATE JOURNAL sign, over the door of the principal stairway in the building, was blown down with a great crash, at the first great blow, in the afternoon; it made a great noise, but was not damaged. Signs throughout the city, generally, were shaky during the storm, and enforced pedestrians watched them with keen apprehension.

ANDREW KENTZLER had a new 475-bbl cistern, into which he turned his water-pipes, Saturday; by last night, it was overflowing. Other cisterns throughout the city are in a similar condition, but ANDREW's is the most remarkable cistern-filling on record in this section.

People who would leave horses hitched out in such a storm as yesterday afternoon do not deserve to stop short of the "big barn place" when they "go henceward"; it is a fact, however, that a suburban lady, well-known in town, came in yesterday morning to attend church, and staid over through the afternoon communion; her poor horse, high-checked and tied with short line, remained hitched up at a Johnson street railway, through all the wild storm, from 9:30 A. M. to 4:30 P. M.—the most uncomfortable and hungriest-looking animal we ever saw. The Society for the Prevention of Cruelty to Animals should start a branch mission here.

The steamer *Bay State* was reaching the city shore, from a Ton ya-wa-tha trip, yesterday afternoon, when the storm struck her and she sustained a breakage of one of her paddles. Capt. BARNES' steamer ran her passengers for her, on the evening trip.

THE STORM ELSEWHERE.

Special Telegrams to the State Journal.

Mazomanie, July 7—noon.

Heavy rains prevailed all around us, but I fail to hear of any hail visitation; farmers reporting at this station, thus far.

A WILD WIND!

Was that which Swept Over this City and Vicinity, Last Night.

Stirring Up the Lakes to their Fiercest Fury.

Imminent Danger to an Excursion on Monona.

Barnes' Steamer Driven to the Railroad Bridge.

"Bay State" Escapes After a Hard Struggle.

How the "Mendota" Rode Down the Waves.

Landing her Crew and Passengers Without Accident.

Notes of the Damage in the Suburbs.

Last evening, between six and seven o'clock, a most remarkable and phenomenal condition of the clouds and air currents began to exhibit itself, showing that there was some unusual perturbation of the atmosphere about to be inaugurated. The sun was setting behind some thin, gauzy clouds which it painted in golden hues; to the northwest and far around to the northeast, there was a bank of heavy-looking clouds from which it appeared that but a few miles in that direction, a heavy shower was prevailing. Frequent flashes of lightning could be observed, while the storm apparently continued to move around to the east. In one part a partial rainbow was seen upon the face of the clouds, and the rays of the setting sun painted fragments of the eastern clouds in a rare and peculiar dark purple, which was set off by a jet black back ground. The storm still passed around toward the South. The wind, which had been blowing steadily from the southwest, began to be fitful and finally piped up a gale from the east, which stirred up the streets with an almost blinding dust for a few moments, and then all was comparatively calm. About 8 o'clock, the clouds which had been passing around from the northeast to the south began to overspread the whole sky, and then a fierce gale set in from the west, then from the north and then from the northeast; the atmosphere was filled with blinding dust, twigs of trees whizzed through the air, the rain began to fall, and an inky darkness prevailed.

ON LAKE MONONA.

The *Scutanawbequon* started from Winnequah a short time before 8 o'clock, with 30 or 40 passengers, fully three-fourths of whom were women and children. Among the passengers were State Treasurer GREENTHER, Messrs. J. H. WAGGONER, W. H. BENNETT, W. W. JONES, FRED. J.

MOLL, and A. E. BAUER, of the State Land Office; the two latter gentlemen had their families with them. Some children of AUGUST KROFF, Dr. FAYILL, Mrs. and Miss MILLER, Miss MESSENER, and several persons and children not known to our informant, were also aboard. Capt. BARNES was in charge of the engine, and Capt. W. W. JONES took the rudder. As the boat had proceeded about half way across the lake, the storm struck her, instantly carrying away her smoke-stack and awning, and producing a good deal of consternation among the passengers. But there happened to be several cool heads aboard, and quiet was soon established. The steam was low, and the mountain waves into which the water was lashed drifted the boat mostly at their will. The darkness was impenetrable, and those who had charge of the boat could only guess at its direction; still they endeavored to keep out of the huge troughs with which the lake was furrowed. Toward nine o'clock the boat drifted toward the Northwestern bridge, about midway of the lake, which she finally struck, with something of a crash. Then commenced the scrambling of passengers to get upon the bridge. Men exerted themselves to secure the lives of the women and children.

Finally all were safely landed upon the bridge, and men started to get lanterns with which to pilot women and children through the thick darkness to their homes. At this juncture, a most alarming circumstance occurred. A train of cars was seen approaching and the alarmed passengers began to take themselves off the track, getting upon the rocks and stringers, or anything upon which they could place their feet or hang with their hands. But fortunately Capt. JONES who had procured a lantern, signalled the train, and thus averted this danger. Finally, amidst the darkness and rain, all reached their homes in safety, a few scratches from the falling smoke-stack, and in the scramble upon the railroad bridge, constitute the sum of the real injuries. The gentlemen from the capital made almost superhuman efforts to save those who were comparatively helpless, and much credit is due them. All these concur in the declaration that the danger was most imminent—they hardly expected to see the land again, and it is doubt-

less owing to their great presence of mind that the lives of the passengers were preserved. Messrs. WAGGONER and GREENTHER went over about five o'clock in the evening, in a skiff, expecting to return in the same, but at Winnequah concluded to take the steamer home. Messrs. BENNETT and JONES went over about four o'clock, and most of the balance of the passengers had been holding a picnic at Winnequah, during the afternoon. It is but little if any less than a miracle, that in this dangerous expedition, many precious lives were not lost, and it is a matter of infinite congratulation that all were finally saved.

THE BAY STATE.

This steamer started from its pier in this city for Tonyawatha, just before the storm commenced, and when about a third of the way across the lake the storm struck her, taking away her smoke-stack and awning. She had on a good head of steam, but her fire was soon partially put out, and the Captain thought best to head her for Winnequah; but she was only able to make within about ten rods of that pier, and was finally driven near Turville's Point, where she got into calmer water. Here her smoke-stack was temporarily replaced, the fire was rebuilt and she got up steam sufficient to take her back to Winnequah. She reached

safe moorings at about 11 o'clock, having sustained no other damage than the loss of her awning and the falling of her smoke-stack. There were but two passengers on board, and nobody hurt.

ON LAKE MENDOTA.

The staunch steamer *Mendota* was on her latest trip around the lake, and among other passengers, was picking up some of the campers at the various points, to bring home. She was just leaving Merrill's Springs, near the head of the lake, when the storm commenced. The wind came sweeping directly the length of the lake, and the steamer headed right in the teeth of the storm, pointing towards McBride's Point. Capt. FREEMAN was himself on board, and with the regular engineer, took charge of the engine, while it required Capt. PATTERSON and an assistant to man the wheel. The waves ran mountain high, and frequently, as the gallant little craft bridged the troughs of the sea, nearly half of her length would be out of water. Sheets of water would often dash over the upper deck, and the pilot was drenched with water as the furious waves dashed into his cabin. But the little craft sped on, true to her course, never trembling nor refusing to obey her rudder, and she rode out the storm so bravely that Captain FREEMAN declares that he thinks more of her now than ever before. Then she encountered the storm in all its violence, passing through the center of the lake for its entire length. She arrived at her pier all safe and sound, some minutes ahead of her regular time.

She walked the water like a thing of life. And seemed to dare the elements to strife.

Messrs. JACOB VAN ETTA, TIMOTHY BROWN, B. E. HUTCHINSON, MATT. HOVEN, GEO. FOLDS, GEO. TRNNEY, Mr. CLEMENT, a guest at the Vilas House, and others, among whom were at least a dozen ladies, were passengers, and none were hurt, few were seriously scared, and not the slightest damage was done the gallant little craft. Too much praise cannot be awarded to those to whom the running of the boat was entrusted, for the coolness and skill with which they performed their duty. Some of the passengers who have frequented the lake for years, declare that they never before saw it in so rough a mood as it was through-out this storm.

AT OTHER PLACES.

W. H. PORTER, Esq., of Marshall, writes the STATE JOURNAL that the storm struck that place about six o'clock, and that there it took the form of a hail-storm. Hail-stones fell as large as pigeon's eggs for 30 minutes and covered the ground to the depth of 4 inches. Upon the north side of the buildings the hail was piled up from 1 to 3 feet deep. Large piles were to be seen this morning. Tobacco, corn, clover and all garden vegetables are completely ruined. A few fortunate ones had hail insurance upon their tobacco and corn. About 2,000 lights of glass were broken out in the village.

Mr. F. W. DENNISON says: BIGLOW Bros. had 18 acres of tobacco all destroyed except about 3 acres. All the lights of glass on the north side of the buildings were broken. He thinks the storm spent most of its force in the neighborhood of Marshall. There was no storm at Waterville.

TOWN OF WINDSOR.

There was a heavy rain storm in this town, but no hail. The strong wind did much damage to the crops.

AT SUN PRAIRIE.

Much damage is reported to tobacco and other crops, but no particulars are given.

BLOOMING GROVE.

Mr. ALEX SMITH informs us that there was no hail in Blooming Grove, but a strong wind and rain. Mr. SMITH's windmill was partially demolished, and some shade trees were blown down.

All together, for the little space over which this storm seems from present advices, to have prevailed, this was among the most violent and destructive with which this exceptional year has been characterized. We expect to hear of much more damage from points not yet heard from, and those who encountered its dangers both on the water and upon terra firma, as well as those whose valuable property has been destroyed will have reason long to remember its terrors and its destructive forces.

A CARD.—Mr. FRED. MESSNER wishes us to express his most grateful thanks to Messrs. R. GURTHUR, F. MOLL and A. E. LAUR, for risking their lives to save his wife and children from drowning in the squall on Taird Lake, last evening.

The Weather.

LOCAL WEATHER REPORT—19 M.

MADISON, Wis., August 11, 1879.

At the U. S. Signal Office, yesterday, the highest temperature was 81 degrees; lowest, 60 degrees. The prevailing direction of the wind was southwest till evening, when a sudden change to the east took place. From 8:15 to 8:30 P. M. the velocity was 40 miles per hour. Rainfall, 0.37 of an inch.

To-day, to noon, the temperature ranged from 63 degrees to 76 degrees, with southeast winds, stationary pressure and fair weather. The total movement of the atmosphere in the past 24 hours was 254 miles.

Time.	Bar.	Ther.	Hum.	Wind.		Weather
				Dir	Vel	
August 10th.						
8:45 P. M.	29.883	80	48	sw	11	Fair.
10:30 P. M.	29.961	64	83	se	4	Lt. rain.
August 11th.						
6:45 A. M.	29.890	67	79	se	4	Fair.
11:10 A. M.	29.897	74	75	se	10	Fair.

INDICATIONS.

WASHINGTON, Aug 11—10:30 A. M.

Indications for Upper Lake Region, Tennessee and Ohio Valley: during rest of Monday, warmer, southeast to southwest winds; falling barometer; partly cloudy weather and local rains in first named district.

Local Weather Report—12 M.
SIGNAL SERVICE, U. S. ARMY,
OFFICE OF OBSERVATION,
MADISON, WIS., May 1, 1880.
LOCAL SUMMARY FOR APRIL, 1880, MADISON, WIS.

DATE.	Mean Daily Barometer.	Mean Daily Thermometer.	Rainfall or Melted Snow—inches.	Prevailing Direction of Wind.	Weather.
April 1.....	29.957	45.0		e	Fair.
2.....	29.708	48.7	.02	n	Cloudy.
3.....	29.493	49.7	.59	n	Fair.
4.....	29.731	48.7		w	Fair.
5.....	29.924	48.7		nw	Cloudy.
6.....	30.167	34.7	.02	nw	Fair.
7.....	30.399	37.5		nw	Fair.
8.....	30.321	50.2		n	Clear.
9.....	30.638	56.7		w	Fair.
10.....	30.013	55.5		n	Fair.
11.....	31.312	34.2		n	Clear.
12.....	30.973	46.5		sw	Clear.
13.....	29.530	64.0		e	Fair.
14.....	29.481	61.0	.11	s	Fair.
15.....	29.942	43.7		nw	Fair.
16.....	29.791	55.0	1.10	n	Cloudy.
17.....	29.891	47.5		se	Fair.
18.....	29.374	61.0	2.15	s	Cloudy.
19.....	29.618	50.5		w	Fair.
20.....	29.938	51.0		s	Fair.
21.....	29.779	60.5		s	Fair.
22.....	29.878	46.0		ne	Cloudy.
23.....	29.180	39.0	.50	e	Cloudy.
24.....	29.772	40.7	.61	e	Cloudy.
25.....	29.657	49.7	.41	w	Fair.
26.....	29.879	44.5	.03	w	Fair.
27.....	30.094	52.7		sw	Fair.
28.....	29.949	55.2	.04	s	Cloudy.
29.....	29.848	44.5	.04	w	Cloudy.
30.....	30.222	46.2	.04	nw	Fair.
Sum.....					
Monthly mean.....	29.864	46.6	5.48	w	

April.	Highest Temperature.	Lowest Temperature.	Range of Temperature.	Barometer—falling or rising.	Miles Wind.	Total Miles Traveled.	Hourly Vel.
1	56	34	22	F	138	77	46
2	54	40	14		88	54	17
3	57	45	12	Low	47	32	45
4	57	44	13		45	30	36
5	49	36	13		82	73	57
6	41	32	9	H	24	74	106
7	43	30	13		132	112	47
8	50	31	19	High	51	46	47
9	70	39	32	F	42	45	70
10	60	32	28	Low	130	76	126
11	42	29	13	High	146	115	107
12	59	34	25	F	45	51	47
13	78	46	32		123	87	81
14	78	54	24	Low	132	78	43
15	54	33	21	R	190	128	103
16	46	32	14	F & R	82	66	87
17	57	35	22	F	131	42	21
18	69	48	21	Low	107	105	72
19	64	36	28	R	96	124	182
20	61	36	25		151	86	95
21	72	47	25	F	100	45	34
22	58	41	17	R	132	80	41
23	44	38	6		96	96	96
24	44	37	7	F	124	112	109
25	61	41	20	R	114	104	75
26	49	40	9	R	60	45	36
27	64	40	24		118	47	29
28	65	47	18	F	60	35	50
29	53	40	13	R	104	72	70
30	55	35	20	High	152	137	77
Sum.....					2980	2337	2001
Mo.....	57.0	38.2	18.8		99	8	67

Mean daily barometer, 29.864; thermometer, 46.6; humidity, 64.6.
Highest barometer, 30.401 (11th).
Lowest barometer, 29.173 (18th).
Monthly range of barometer, 1.228.
Highest temperature, 78 (13th and 14th).
Lowest temperature, 23 (11th).
Monthly range of temperature, 55.
Greatest daily range of temperature, 32 (13th).
Least daily range of temperature, 6 (23d).
Mean of maximum temperature, 57.
Mean of minimum temperature, 38.
Mean daily range of temperature, 19.
Total rainfall or melted snow, 5.48 inches.
Prevailing winds, west.
Maximum velocity and direction, 41, west, (4th).
Total movement of wind, 9,708 miles.
Number of cloudy days on which rain fell, 7.
Number of cloudy days on which no rain fell, 3.
Number of days on which rain or snow fell, 13.
Rain or snow preceded by wind from east, 4 times.
Rain or snow preceded by wind from south, 3 times.
Rain or snow preceded by wind from northwest and west, each twice.
Rain or snow preceded by wind from east, northeast and southwest, each once.
Mean of barometer, corrected for temperature only, 29.883.

PREVIOUS YEARS FROM UNIVERSITY RECORDS.

DATE.	Barometer—Corrected for Temp. for Mean only.	Mean Ther.	Mean Rel. Hum.	Rainfall or melted snow.	Mean Dir. of Wind.	Max. Temp.	Min. Temp.	Range Temp.	No. days on which snow or rain fell.
April, 1860.....	29.828	50.829	77	0.18	e	62	32	30	13
1870.....	29.840	50.829	76	0.18	e	62	32	30	13
1880.....	29.840	50.829	76	0.18	e	62	32	30	13
1890.....	29.840	50.829	76	0.18	e	62	32	30	13
1900.....	29.840	50.829	76	0.18	e	62	32	30	13
1910.....	29.840	50.829	76	0.18	e	62	32	30	13
1920.....	29.840	50.829	76	0.18	e	62	32	30	13
1930.....	29.840	50.829	76	0.18	e	62	32	30	13
1940.....	29.840	50.829	76	0.18	e	62	32	30	13
1950.....	29.840	50.829	76	0.18	e	62	32	30	13
1960.....	29.840	50.829	76	0.18	e	62	32	30	13
1970.....	29.840	50.829	76	0.18	e	62	32	30	13
1980.....	29.840	50.829	76	0.18	e	62	32	30	13
1990.....	29.840	50.829	76	0.18	e	62	32	30	13
2000.....	29.840	50.829	76	0.18	e	62	32	30	13

At the U. S. Signal Office, yesterday, the highest temperature was 55 degrees; lowest, 35 degrees. The prevailing direction of the wind was northwest, with 18 miles per hour, at 8:15 A. M., as the highest velocity.
To-day, to noon, the temperature ranged from 45 degrees to 65 degrees, with westerly wind, decreasing pressure and fair weather.
The total movement of the atmosphere in the past twenty-four hours was 330 miles.

Time.	Bar.	Ther.	Hum.	Wind.	Weather.
				Dir Vel	
April 30					
2:10 P. M.	30.244	50	39	nw 12	Fair.
10:10 P. M.	30.188	45	56	sw 6	Clear.
May 1.					
6:10 A. M.	30.047	47	55	sw 17	Fair.
10:10 A. M.	29.960	61	40	w 22	Fair.

INDICATIONS.
WASHINGTON, May 1—10:30 A. M.
Indications for the Lake Region: Stationary, followed by falling barometer, southwest winds, warmer and partly cloudy weather.

A Season of Cyclones.
This is a spring uncommonly fruitful of cyclones and destructive storms. The accounts of the havoc of property and loss of life from the storm of the evening of the 18th of this month had scarcely ceased to crowd the telegraphic columns of newspapers, before they were supplemented by the news of another cyclone of almost equal violence on Saturday night last. The track of the first storm was from the southwest to the northeast, sweeping through large portions of Missouri, attended with immense destruction of property and fearful loss of life, then passing lightly through Illinois, and striking a severe blow upon Wisconsin. The tornado of Saturday night seems to have taken very nearly the same direction of its predecessor, but its initial point was farther to the East, its path less extensive and its terrific force expended itself mostly upon the counties of Greene, Christian and Sangamon, in central Illinois. Greenfield in Greene county, Taylorville in Christian county, and Springfield in Sangamon county, are points where the storm reached its height, its course being somewhat zigzag in striking those places. Near Taylorville, four persons were killed outright, one afterwards died, two others were fatally injured and thirty-two were reported as seriously but not

fatally hurt. In Medora, Rockbridge and Chesterfield, Illinois, great damage was also done, and some lives lost, the number of which has not yet been fully ascertained. The effects of the storm are peculiar. It is noticed that all the killed and injured are begrimed with sand and mud, which appears to be burnt on the skin or driven into the surface, so that it is almost impossible to remove it. The faces and limbs of the sufferers are scarified as if they had been subjected to a sand blast. Many fowls have been wholly denuded of their feathers, with their bodies burned black, and the trees and vegetation in the path of the cyclone exhibit the same scorched appearance. Where trees are blown down, their tops upon each side point toward the storm centre, indicating that it was a true cyclone. All these indications show most remarkable atmospheric and meteoric conditions. The electrical state of the atmosphere has been extraordinary and phenomenal for some months past. Thunder storms, usually a great rarity in the winter and early spring, have been frequent, heavy and of long duration, and the deaths and losses of property by lightning have been unparalleled. A slight upward tendency of the mercury in the thermometer above the usual range has been sufficient to generate and provoke a thunder storm which would do credit to dog-days. Storm signals have been almost constantly kept up from points upon the lake shores from Lake Superior to the Gulf of St. Lawrence. The culmination of this most remarkable series of storms was crowded into the beginning and ending of the past week, and the full record of the mishaps and destruction of property and deplorable loss of life which have been the consequence, will form a most extraordinary and exceptional chapter in the history of storms and in the reports of meteorological bureaus. These strange atmospheric perturbations and disturbances are worthy of the profoundest study of meteorologists and physicists, and the tables of observation must be brought into requisition and be subjected to the closest philosophical analysis and comparison to gain some clue to the efficient causes of these phenomenal storms; to see if their dire effects can be in any way anticipated and guarded against.

The Weather.

LOCAL SUMMARY FOR FEBRUARY, 1881.

DATE.	Mean Daily Barometer.	Mean Daily Thermometer.	Rainfall or Melted Snow—Inches.	Prevailing Direction of Wind.	Weather.
Feb. 1.....	30.479	6.7	.45	n	Cloudy.
2.....	30.391	13.2	.23	e	Cloudy.
3.....	30.369	6.5	.12	ne	Fair.
4.....	30.486	15.5	e	e	Cloudy.
5.....	30.415	23.5	e	e	Cloudy.
6.....	30.321	30.7	e	e	Cloudy.
7.....	30.307	36.0	.23	se	Cloudy.
8.....	30.389	36.0	.18	sw	Fair.
9.....	30.480	35.0	.18	n	Cloudy.
10.....	30.329	31.2	.10	w	Cloudy.
11.....	30.338	30.7	.28	ne	Cloudy.
12.....	30.650	14.5	.57	sw	Cloudy.
13.....	30.313	9.5	e	sw	Fair.
14.....	30.478	11.2	e	sw	Fair.
15.....	30.154	59.2	.19	sw	Cloudy.
16.....	30.390	10.5	w	w	Clear.
17.....	31.850	13.5	.03	sw	Cloudy.
18.....	30.125	14.0	—	nw	Fair.
19.....	30.157	17.7	—	n	Clear.
20.....	30.062	22.0	—	s	Fair.
21.....	30.045	21.0	—	s	Fair.
22.....	29.887	22.0	.1	nw	Fair.
23.....	30.386	5.5	—	nw	Fair.
24.....	30.331	9.2	.40	se	Cloudy.
25.....	30.079	15.7	.03	se	Cloudy.
26.....	29.527	39.5	1.16	a	Cloudy.
27.....	29.553	24.7	1.37	n	Cloudy.
28.....	29.927	13.4	—	nw	Fair.
Sum.....	.....	.....	5.42	.....	.....
Monthly mean	30.104	18.9	.....	.....	.....

TEMPERATURE, BAROMETER AND WIND.

February, 1881.	Highest Temperature.	Lowest Temperature.	Range of Temperature.	Barometer—Rising or Falling.	From Noon to P. M.	From P. M. to Midnight.	From Midnight to 6 A. M.	From 6 A. M. to Noon.	Total Number of Miles Traveled.	Maximum Hourly Velocity.
1	11	1	10	30.48	125	141	121	81	428	23
2	14	8	6	30.40	125	141	121	81	428	18
3	14	8	6	30.40	125	141	121	81	428	18
4	14	8	6	30.40	125	141	121	81	428	18
5	14	8	6	30.40	125	141	121	81	428	18
6	14	8	6	30.40	125	141	121	81	428	18
7	14	8	6	30.40	125	141	121	81	428	18
8	14	8	6	30.40	125	141	121	81	428	18
9	14	8	6	30.40	125	141	121	81	428	18
10	14	8	6	30.40	125	141	121	81	428	18
11	14	8	6	30.40	125	141	121	81	428	18
12	14	8	6	30.40	125	141	121	81	428	18
13	14	8	6	30.40	125	141	121	81	428	18
14	14	8	6	30.40	125	141	121	81	428	18
15	14	8	6	30.40	125	141	121	81	428	18
16	14	8	6	30.40	125	141	121	81	428	18
17	14	8	6	30.40	125	141	121	81	428	18
18	14	8	6	30.40	125	141	121	81	428	18
19	14	8	6	30.40	125	141	121	81	428	18
20	14	8	6	30.40	125	141	121	81	428	18
21	14	8	6	30.40	125	141	121	81	428	18
22	14	8	6	30.40	125	141	121	81	428	18
23	14	8	6	30.40	125	141	121	81	428	18
24	14	8	6	30.40	125	141	121	81	428	18
25	14	8	6	30.40	125	141	121	81	428	18
26	14	8	6	30.40	125	141	121	81	428	18
27	14	8	6	30.40	125	141	121	81	428	18
28	14	8	6	30.40	125	141	121	81	428	18
Sum	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
M	6.1	0.2	16.3	.....	80	72	67	71	290	21

CHART.

The variations of pressure during the month correspond by an exceptionally stormy period, the most noticeable feature being the storm of the 28th and 29th. This, beginning with high temperature and electrical disturbance, with heavy rain, passed into a severe snow storm with violent north wind, producing an abnormal precipitation.

Mean daily barometer, 30.104. Thermometer, 18.9. Humidity, 76.3.

Highest barometer, 31.850 (3d.).

Lowest barometer, 29.459 (12th.).

Monthly range of barometer, 1.150.

Highest temperature, 44 (26th.).

Lowest temperature, -4 (14th.).

Monthly range of temperature, 48.

Greatest daily range of temperature, 29 (25th.).

Least daily range of temperature, 5 (7th and 12th.).

Mean of maximum temperatures, 26.8.

Mean of minimum temperatures, 10.2.

Mean daily range of temperatures, 16.5.

Total rainfall or melted snow, 5.42 inches.

Prevailing winds, northwest.

Maximum velocity and direction, 40 (10:30 P. M., 11th.).

Total movement of wind, 8,123 miles.

Number of cloudy days on which rain or snow fell, 12.

Number of cloudy days on which no rain fell, 8.

Number of days on which rain or snow fell, 16.

PREVIOUS YEARS FROM UNIVERSITY RECORDS.

DATE.	BAROMETER.		Mean Ther.	Mean Rel. Hum.	Rainfall or melted snow.	Mean Dir. of Wind.	TEMPERATURE.			No. days on which rain fell.
	Corrected for Temp. only.	Corrected for Elevation.					Highest Temp.	Lowest Temp.	Range Temp.	
Feb., 1869..	28.932	29.998	22.9	84	2.35	—	50	-1	51	5
1870..	28.871	29.937	20.9	84	1.35	sw	38	-15	53	5
1871..	28.829	29.918	23.7	84	1.43	sw	46	-1	40	5
1872..	28.859	29.970	19.2	84	0.40	sw	43	-10	53	5
1873..	28.857	29.942	15.6	84	0.60	sw	40	-20	60	5
1874..	28.925	30.008	21.0	84	0.95	sw	41	-10	51	5
1875..	28.925	30.030	24.4	84	2.80	w	37	-41	48	5
1876..	28.934	30.100	24.3	84	1.60	n	37	-10	63	5
1877..	29.108	30.162	32.6	84	0.30	n	52	15	37	5
1878..	28.884	29.926	32.8	84	1.19	n	53	13	40	5
1879..	29.012	30.089	32.0	70	2.54	sw	46	-12	58	11
1880..	28.936	29.958	28.2	70	1.75	sw	55	0	55	5
1881..	29.047	30.104	18.9	70	5.42	sw	44	-4	48	16
Average....	28.947	30.019	21.9	84	1.74	sw	46	-5	52	5

THE RECORD FOR A YEAR, FOR THE BENEFIT OF THOSE WHO DO NOT PRESERVE THEIR PAPERS.

Date.	Barometer.		Mean Ther-mometer.	Mean Relative Humidity.	Rainfall or Melted Snow.	Mean Direc. of Wind.	Temperature.			Miles of Wind.	Maximum Velocity.
	Corrected for Temp. only.	Corrected for Elevation.					Highest Temp.	Lowest Temp.	Range Temp.		
February, 1880..	28.995	29.993	28.2	79	1.75	nw	55	0	55	8740	35
March, 1880.....	29.007	29.921	23.6	68	2.11	sw	57	7	50	9545	23
April, 1880.....	28.878	29.864	46.6	65	5.48	w	78	23	55	9758	41
May, 1880.....	28.937	29.877	65.5	64	4.45	sw	56	41	44	7344	50
June, 1880.....	28.924	29.892	68.6	71	9.31	sw	87	50	37	6077	50
July, 1880.....	28.881	29.916	71.9	72	6.00	nw	93	33	40	5345	53
August, 1880.....	29.012	29.952	71.0	74	5.90	n	93	52	40	5681	50
September, 1880..	29.013	29.974	50.6	71	4.41	n	85	40	45	6183	50
October, 1880.....	29.011	29.965	43.5	67	1.68	n	75	26	49	8055	44
November, 1880..	29.084	30.123	26.3	72	1.63	n	60	-7	67	7815	29
December, 1880..	29.034	30.092	17.0	75	1.17	n	40	-21	61	7402	32
January, 1881.....	29.062	30.131	12.2	74	2.05	n	35	-29	55	6906	25
February, 1881....	29.047	30.104	18.9	76	5.42	nw	44	-4	48	8125	40
Yearly Sum.....	.....	.....	.....	.....	49.69	.....	.....	.....	.....	88,050	.....
Yearly Mean.....	28.999	29.997	45.2	71.0	4.14	n	69.3	20.2	49.1	7388	34

Rain or snow preceded by wind from south-east, three times.

Rain or snow preceded by wind from the east, twice.

Rain or snow preceded by wind from the south, north, northeast and northwest, once each.

Number of clear days, 2.

Number of fair days, 11.

Number of cloudy days, 15.

Mean of barometer corrected for temperature only, 29.047.

LOCAL REPORT—12 M.

MADISON, Wis., Tuesday, March 1, 1881.

At the U. S. Signal Office, yesterday, the highest temperature was 19 degrees; lowest, 9. The prevailing direction of the wind was northwest with velocities per hour, at 12:30 A. M., as the highest velocity.

To-day, to noon, the temperature ranged from -1 degree to 14 degrees, with northwest to east wind, steady pressure and fair weather.

The total movement of the atmosphere in the past twenty-four hours was 874 miles.

Feb. 28, 2:10 P. M.—Barometer, 29.873; thermometer, 18; humidity, 68; direction of wind, northwest; velocity, 20 miles per hour; weather, fair.

10:10 P. M.—Barometer, 30.051; thermometer, 12; humidity, 70; direction of wind, northwest; velocity, 14 mile per hour; weather, clear.

March 1, 6:10 A. M.—Barometer, 30.148; thermometer, -1 humidity, 68; direction of wind, northwest; velocity, 10 miles per hour; weather, clear.

10:10 A. M.—Barometer, 30.159; thermometer, 8; humidity, 66; direction of wind, northeast; velocity, 8 miles per hour; weather, fair.

INDICATIONS.

WASHINGTON, March 1—10:30 A. M.

The indications for the Upper Lake Region: Fair weather, generally higher temperature, with westerly veering to easterly winds in the western part, with lower barometer.

The Storm !

One of the Worst Blizzards Ever Seen in Wisconsin.

Thunder, Lightning, Rain and Snow Strive for Supremacy.

Travel Entirely Stopped, and

Everything Snowed Under.

The north wind doth blow,
And we shall have snow,
And what will the tramp do then,
Poor thing?
He'll bust for the boon
Of a kindly saloon,
And beg for a little gin-sling.

SATURDAY.

A thunder-storm began at noon Saturday, and raged with tropical violence all the afternoon and night, melting huge snow drifts and turning the gutters into miniature rivers, with power enough to run a saw-mill. The lightning struck several buildings in the city, including the Capitol and the Congregational Church, the steeple of which was hit about six o'clock in the evening. The rain continued to fall in torrents during the night, and the slush under foot was from two to three feet deep. No one went abroad who could help it.

SUNDAY.

At seven o'clock Sunday morning, the rain changed to snow, which came swooping down before a brisk gale that piled it in drifts everywhere that seemed most inconvenient. A few devotees were to be seen at church in the morning, but by the time night came no one would brave the storm and evening services were abandoned. All day long the snow continued to fall steadily, covering the slush and water and drifting in heaps from three to ten feet high, hiding fences and out-buildings, and in some instances piling up against doors so that the occupants of houses had to dig their way out.

Fortunately the temperature remained at a reasonably warm point, so that those who had to leave their homes were only obliged to face the driving snow and wade waist deep, without being in danger of freezing to death. If the mercury had been down to some points it has reached this winter, no living thing could have existed in it for half an hour.

The lamp-lighters waited for daylight this morning before extinguishing the street lamps.

MONDAY, FEB. 28, 1881.

THE RAILROADS.

Nothing was attempted Sunday night, and all trains were abandoned at different points along the line. On the Northwestern road, the train due here at 2:27 A. M. going north, only came as far as Harvard, the drifts there preventing the taking of locomotives out of the round-house. At 9:40 this morning, the regular train from the north got in, preceded by a snow-plow, with three locomotives from Baraboo. Passengers report that the storm reached as far as Reedsburg, where the snow was very light. The snow-plow started south, leaving the train here until the road should be clear. It encountered deep drifts and ran off the track before reaching Oregon.

To the west, on the St. Paul road, there does not appear to have been much trouble. The noon train got in only about twenty minutes late, but stopped here for further orders. East and south things are very bad, as well as on the Portage road. All trains on the Watertown and Portage divisions are abandoned for the day, and the company are devoting their energies to clearing the main line by way of Milton Junction. The train due here from Milwaukee will undoubtedly be in on time, at 5:35. The train due here at 10 A. M. was suspended.

IN THIS CITY,

the streets looked this morning like a river partially broken up in the spring time, and gorged with snow and ice. Bishop was out early, with men and snow-plows, and succeeded in cleaning a passage through the principal thoroughfares. The worst place was on the corner of Main and Pinckney streets, between Rowley's and Belden's corners. Snow and ice were piled up as though by an earthquake, and streams of water ran from the slush below. A temporary bridge was put across the streets, plows and shovels concentrated there and a force of men set to dig a ditch to drain off the slush into the lake.

Everybody who could was mining for sidewalks, with a prospect of striking bed-rock by noon.

AT MILWAUKEE.

A Milwaukee dispatch says: The rains of Saturday changed into a fearful blow and heavy snow. The ice moving out of the river last night broke three tugs and one vessel loose, but they were recovered without damage. The railroad trains on all the lines centering in Milwaukee have been suspended. This is the heaviest snow blockade of the entire season. The water and snow combined and the freezing, make it certain that the railroads will be cleared with the greatest difficulty.

LATEST.

The morning passenger train on the Northwestern road left here after a short detention, and was last heard from south of Evansville; it is expected to reach Chicago about six o'clock this evening. No train had left Harvard, coming north, at 3 o'clock.

On the St. Paul road, the noon train is still at the depot, awaiting orders. The 5:35 train from Milwaukee is on the road, and expected here on time.

The Great Storm.

Now that snow has ceased to descend upon the heads of a devoted people, and it is possible to see a small section of blue sky, by the aid of a powerful telescope, a short review of the week's tribulations is in order.

Last Saturday we had a tropical thunder-storm, which flooded everything, and the lightning struck the Capitol, the Congregational Church and several other places in the city. Rain fell all night, until about seven o'clock Sunday morning, when it turned to snow, and came down as though it was paid for it. The violence of the storm kept most people away from church in the morning, and compelled the abandonment of evening services. All the railroads were blockaded and trains abandoned in all directions.

Legislators who had gone to Milwaukee to stay over Sunday started for Madison Monday afternoon, but owing to the state of the roads they did not arrive here until Wednesday at 11 A. M. Two or three other trains on the St. Paul road also got here that day.

The Northwestern road managed to get their line all clear by Tuesday morning, and everything began to go along all right.

The Portage and Watertown lines were filled up, and have not been used since.

Wednesday was a nice day, and everybody began to feel cheerful until about seven o'clock in the evening, when the snow began to come down in immense flakes, accompanied by a high wind, which piled it in huge drifts. For the next forty-eight hours nothing was to be seen but constantly falling snow and drifts of heights from twenty feet down. Everything was blockaded, trains abandoned and locomotion stopped even around the city. Thursday was devoted to fighting the drifts and trying to clear sidewalks and crossings; no vehicles stirred abroad; and only doctors appeared on horseback. Friday things began to look a trifle better and a few teams began to break the road.

The sidewalks were kept clear enough to admit of pedestrianism, but no one went out who could help it. No trains have arrived since Wednesday evening.

The deep snow has seriously inconvenienced housekeepers, who could not get supplies. The milkmen could not get in town until late Thursday afternoon, and many families ran out of milk entirely,

as the hotels had contracted for what could be spared by citizens who kept cows.

When our people awoke this morning, they were cheered by the fact that no snow was falling, and have gone to work with a will to clear their walks and lots.

THE RAILROADS.

The Northwestern people have gone to work with a will. Shovelers have cleared out the depot and platforms, dug a road for omnibuses to drive in and opened connecting alleys to the platforms. Snow-plows are working towards Madison from both directions. The one from the south was near Beloit at noon, and the plow coming from Baraboo had got this side of Waunakee, where a big drift was encountered, that is being shoveled away. A gang of men went out to the Rock cut and found that a snow plow could come through without any shoveling.

Experienced men think that the plows from the north and south will meet some time to-day, and that the men in charge will be able to shake hands over the bloody chasm, so to speak.

The road is clear from Waunakee to St. Paul, and from Caledonia to Chicago, and when that much more has been traversed by snow-plows, "look out for the cars when the bell rings."

The Portage and Watertown roads are still a blank, covered by drifts on which the foot of man has never trodden. The only indication of where the latter road is, is furnished by the tracks left by a man who led a cow up that way this morning, in order to water her at the lake.

On the St. Paul road, the track is all right to Prairie du Chien, with the exception of the train stuck near Middleton, which will be shoveled out and brought in before night. The train due here at noon from Prairie du Chien is at Middleton, and will come in as soon as the other train is moved. The road from here to Milwaukee is completely blockaded, and no one can even guess when it will be open.

Everybody connected with the roads is doing his best, and things will be righted as soon as possible.

MISCELLANEOUS.

The sun has actually begun to shine again, and several timid people were frightened of their own shadows, it was so long since they had seen them.

Milliners have resumed business, after being closed for two days, in most instances.

The Weather.

Vennor has had such remarkably good luck in guessing at the kind of weather we were to have this winter, that he has now undertaken to fix it for a whole year in advance, and is kind enough to promise better weather for next winter. Following is his letter in full:

MONTREAL, March 5.

The spring will be fairly early, hot and dry, and the midsummer cool and wet. The autumn promises to be open, dry and fine. There is likely to be a great deal of sickness during the year, but the weather—except in a few isolated sections, will be favorable to agricultural pursuits. The winter of 1883 bids fair to be open and generally mild, with but few, and those short-lived, storm periods.

HENRY G. VENNOR.

The storm to-day is more violent in its character than any of the blizzards which have visited us the past month. Trains are suspended on all roads in Southern Wisconsin, until after the storm abates. The snow being wet and heavy, the telegraph lines are working badly, and our afternoon dispatches are consequently curtailed. All the cuts in the highways and railroads are fast filling up, and another blockade of serious proportions is threatened. As far as can be ascertained, Elroy appears to be the extreme limit of the storm region, to the northwest, and Richland Centre to the west, while in Chicago and Milwaukee the blizzard is more severe and the snow fall greater than at Madison. Owing to the long-continued blockade on roads leading to the Northwest the accumulation of freight in the Chicago depots is enormous. The freight depot of the Chicago & Northwestern road particularly, is crowded to an extent before unheard of. Some of the freight has been lying there for weeks awaiting transportation. To-day's storm will tend to still further complicate matters.

The Storm.

Once more has the winter of our discontent broken out in a fresh place, and all the clouds that were scattered around the world have come back, loaded to the muzzle with snow, which they are discharging in solid chunks on everything within reach.

Yesterday it looked as though spring had grown tired of having winter linger in her lap, and had thrown the old sinner overboard with sufficient force to break his back, but this morning he has braced up again and poor spring is sitting back meekly, with her throat tied up in flannel and her eyes and nose showing the effects of a cold in her head. Poor Spring, it is too bad; but then she ought to know better than to try and visit Wisconsin, dressed in summer clothes, during the month of March. So far old winter, he is as vigorous as ever, and is skipping around in a fashion that will blockade everything again, unless he grows tired before night.

Trains all got in on time this morning, and at noon there were no grave fears of a blockade, but if the storm should wind up with a freeze, nothing short of a pickax would do any good to the tracks of the railroads. Let us hope that spring will forget her proverbial gentleness, and take winter by his hoary locks with sufficient violence to stop his unseemly antics for the future.

LATEST REPORTS.

The train that should have gone from here to Milwaukee at noon to-day, did not leave at all, and those members of the Legislature who were going away came back up town about two o'clock.

It is said that the train from Chicago is at Harvard, awaiting orders, it being thought impossible to get through.

There is no knowing how severe the blockade will be, as it depends on the extent of the storm, which is said to be much more severe east and south of here, than it is to the north and west. Passengers from the west state that there was no snow beyond Mazomanie, and it is said that Elroy is the extreme northern limit of the blizzard.

All trains on the St. Paul railway are ordered to be held here until the storm ceases,—and if anybody has engagements in other parts of the State, they had better telegraph their friends that they are not coming.

Reports from Milwaukee and Chicago are that the storm rages there with great violence.

Notes of the Storm.

The snow which fell all day Saturday finally ceased to come down, about nine o'clock in the evening, but the wind howled all night and piled up drifts that blockaded everything Sunday morning, and gave the city an appearance that rivalled the desolation of the last blizzard. Bishop was at work early with a large force of men, and established communication as soon as possible, keeping up the good work all day.

No trains came in on any road Saturday night, and the efforts of the companies were confined to trying to open the roads, Sunday.

The St. Paul company started a plow west from Milwaukee, with three locomotives and a gang of men, but they only got out nine miles during the day. Men and plows also worked at other points on the east end, but with slight success. The snow plow that left here got a short distance beyond Stoughton during the day, and ran back here in the evening. To the west, matters are a little more favorable, and at noon to-day the snow plows were about three miles apart near Cross Plains, with a prospect of meeting after some heavy shovelling had been done.

On the Northwestern road, a train from the north got in at 10 o'clock, but stopped here, and went back this afternoon at 4 o'clock, to make northern connections.

There is not much chance of any trains from the east or south to-day, although some sanguine individuals hope that a Chicago mail will come some time during the night.

The train that left here at 9:40 Saturday morning only got as far as Harvard, and was there at last accounts, while the one coming north from Chicago got stuck at Palantine, Ill., and is supposed to be there yet.

The blockade is considered to be the worst of the season, as the drifts are packed solid and a snow plow has no particular effect on them, unless it is to pound them a little harder for the shovelers to dig out. Nothing short of men with shovels and picks can establish a right of way, and of course this is slow, hard work. Every one connected with the railroads is doing the best he can, and the only thing the public can do is to wait patiently until the roads can be cleared.

One unpleasant feature for railroad, express and mail agents is that nearly all of them are blockaded away from home, on the wrong end of the route, and hardly a single man spent Sunday where he lived.

The Auroral Display of April 16th.

The Aurora of last night was the most remarkable one which has been observed here for many years, and indeed belongs to the most splendid exhibitions of the kind. The night began with a perfectly clear sky over head, accompanied, however, by a dense haze or fog about the horizon. Before any auroral display was manifest to the eye, the peculiar unsteadiness of the northern stars was noticed in the small transit instrument of the Washburn Observatory with which Mr. Comstock was observing. It is a noteworthy fact that the presence of even the faintest show of aurora invariably destroys that quietness of the atmosphere which is necessary for the very finest astronomical observations. The large telescope was being used in the south, and no peculiarity of the kind was noticed with it, until after 10 P. M. At about 9h. 24m. (Chicago time), a fine auroral arch was observed in the north. This was all of white light, and quiet. Below the arch was the usual dark segment, which the haze around the horizon caused to seem darker than ordinarily. At first there was little to distinguish this auroral arch from any one of the nine auroras which have been recorded at the observatory during the past four months. But it was soon noticed that the arch was moving upward. At 9:24, the arch passed through the two stars Alpha and Beta Cassiopeae, but only twelve minutes later it had moved upward to include Polaris, so that at 9:36 it had an altitude of 43°. Soon after this, fine streamers of bundles of bright rays were shot downward, and offshoots from the main arch appeared first in the southwest and then in the south east. The peculiar color of the landscape, illuminated by a light so strangely different from sunlight or moonlight, was specially noteworthy. The main corona overhead was formed soon after and maintained its position with remarkable permanence throughout the display. Any description of the splendid display of streamers and corona, of the traveling rays and waves of light, and of the impressive formation and re-formation of coronas, would be entirely inadequate to convey an idea of the display to one who had not seen it; and would seem to be an impertinence to those who had. The changes were so rapid, so startling, and the waves and pulsations of the streamers so almost theatric, that it was remarked that if it were not a purely physical phenomenon, it might almost be condemned on the score of being meretricious.

It may be said that there was nothing exceptional in this display as compared with others of the kind, except, perhaps, that the amount of rosy light was rather less than is common in displays of such splendor. Scientifically, no results of any importance can be deduced from any observations which were made upon it. The magnetic observatory of the university has unfortunately been abandoned by the coast survey, and the self-registering photographic instruments, which would have shown a perturbation for each pulsation of the aurora, are now in boxes in Washington. This was a true magnetic storm and deserved as careful a registry as the atmospheric storms which can be followed on the weather maps.

We are now approaching a period of many auroras, for it is strangely true that every 11 years there is a maximum number of auroral displays followed by a gradual diminution in the number until

five and one-half years after maximum; minimum is reached. What is still more true, this period of 11 years is also found in the amount of spotted area of the sun's surface, and moreover the maximum number of auroras recurs at the time when there is a maximum amount of the sun's surface covered with spots. This shows that in some way, across the 90,000,000 miles between the earth and the sun there is a way for some solar influence other than gravitation to work. What this is that exerts so important an action at a distance, we do not know. We only know its simplest laws and can predict its effects on the magnetic needle with tolerable exactness.

In the absence of magnetic instruments it is difficult to make observations of any great value upon auroras. And yet we do not wish to simply stand and gaze at them as a spectacle without trying to register some of their distinctive features. In this way we shall enjoy the beauty even more, since we shall understand its component parts. Any attempt to draw such an aurora as that of last night is quite hopeless; but the simple auroral arches may be well depicted by making a sketch upon a common school slate with a soft soap-stone pencil. The time at which the sketch was made should be recorded, and after the main features of the aurora have been drawn, the positions of the brighter stars should be dotted in. The drawing can be made through the open window of a north room, and the room should have the least amount of artificial light in it which is compatible with seeing the drawing. After the drawing is completed it can be photographed. A series of such drawings kept up for the next 3 or 4 years would be a positive contribution to science, and among our university or high school students there should be some who are willing to begin their scientific career in this way. *Quæquid nitet notandum.* *prof. E.S. Holden*

State Journal

The Electric Storm.

The wonderful aurora, of last night which is described at length in our editorial columns, seriously affected the telegraph wires here, as all over the northern states. Mr. C. E. Bross, manager of the Western Union, informed a STATE JOURNAL reporter this afternoon that previous storms experienced by him had never affected the wires for more than a few hours, but this one almost wholly incapacitated the lines up to noon to-day. The effect was intermittent; most of the time, the fluid was wholly neutralized, then occasionally there would be three times the ordinary charge. As early as 10 P. M., the light was so strong in the north that shadows were cast, while at 3 and 4 A. M., the whole heavens seemed aglow, and it was possible to read, as in a brilliant moonlit night, only the light was strange and weird.

During last night's aurora the atmosphere was so charged with electricity that the telegraph wires were rendered unavailable, and when the display had somewhat subsided the local batteries between Chicago and St. Paul and New York and Washington were detached and dispatches were sent between the points by the heavenly display alone, which furnished electricity enough to send a few experimental messages, but the regular press report was cut off.

The Brilliant Aurora.

AT MILWAUKEE.

MILWAUKEE, April 16.—Last night citizens who chanced to be out late were treated to one of the grandest displays of aurora borealis witnessed in years. The performance began about 10 o'clock and continued with unusual brilliancy until well along toward morning. The first act consisted of a display of long electric ribbons of bright light dashed in flickering wavy mazes from a northerly and easterly direction, and while these ribbons disported themselves nimbly, a deep, red light illuminated the west dome of the sky, to heighten the effect it is presumed. In the second act the dancing ribbons extended from northwest to southeast completing the arch of a semi-circle. The third act was a repetition of the first and second, and so on to the close of the performance. Thousands of citizens watched the brilliant display for hours with bated breath and awe-stricken wonderment, and could scarcely be lured to their beds. The telegraph wires were visibly affected while the unusual display lasted, but not sufficiently to prevent the transmission of business. About 11 o'clock, the Western Union Telegraph Company disconnected their batteries between Chicago and New York, and Chicago and Omaha, and worked their wires by means of the superabundance of atmospheric electricity. At a later hour the batteries were dispensed with between Chicago and St. Paul, with similar success. The occurrence brought to mind a similar one of years gone by, when the batteries along the entire line between New Brunswick and San Francisco were dispensed with, a grand circuit was formed of atmospheric electricity, and telegraphing was done solely by this means. On that occasion San Francisco asked St. Johns if they had any Milwaukee lager in their town, and the answer was returned, "No, nothing but henglish ale."

AT NEW YORK.

NEW YORK, April 17.—The aurora display here and elsewhere east, last night, was a very brilliant and beautiful spectacle. It had this drawback, that it took possession of the wires about 11 o'clock, there being no communication thereafter between the West and East.

AT CINCINNATI.

CINCINNATI, April 17.—A very brilliant display of aurora borealis has been visible here all the evening in the northeast, its rays extending beyond the zenith.

AT CHICAGO AND ST. PAUL.

CHICAGO, April 17.—A remarkably brilliant aurora borealis was visible here last night. The corona was perfectly defined, extending nearly to the zenith. The air was so charged with electricity that the telegraph wires wouldn't work with the batteries connected. The wires were inoperative between Chicago and New York, and intermediate points. Dispatches were sent between Chicago and Omaha and Chicago and Milwaukee, on the strength of the atmospheric electricity without the battery. The wire between Chicago and St. Paul was closed, on account of not warning St. Paul to disconnect the battery. The display at St. Paul was very brilliant.

AT CLEVELAND.

CLEVELAND, O., April 17.—The electric condition which produced the extraordinary display last night more or less seriously affected a great many persons here, particularly those troubled with nervous disorders. Rev. S. L. Binkley, pastor of the Prospect Street M. E. Church, was prostrated in the pulpit, while praying, by what was first supposed to be paralysis. Ladies fainted in the churches during service, and people who were out of doors as well as in, complain generally of strongly oppressive sensations, similar to those attendant upon earthquakes.

AT DETROIT.

DETROIT, April 17.—The aurora borealis at this point, at an early hour this morning, was very fine. The effect almost entirely suspended telegraphic communications.

Democrat April 18 '82

THE scientific editor of the State *Journal* performed a most painful duty yesterday in his mighty column description of the display of Aurora on Sunday night. He charged upon his subject in opening his first paragraph with a bold assurance that gradually ebbed away as he proceeded, until the paragraph closed with an admission that a description "would be entirely

inadequate to convey an idea of the display to one who had not seen it; and would seem to be an impertinence to those who had." This admission came in the first third of the column and a glance at the brevity of the thing nerved him anew and he tossed his ambrosial locks, spit on his hands and made at it with fresh zeal, but only to fall "to grass" again at the close of the next third of column with the humiliating admission that "what this is that exerts so important an action at a distance, we do not know." This last tumble seems to have jarred his constitution, for though he picks himself up and starts in for the home stretch, his gait has grown more unsteady and his breath gets hard with the wheeze of desperation, until he wildly concludes with the classical wail—"Quicquid nitet notandum," which being translated into the vulgar, meaneth, "I bit off more than I could chew."

Last Evening's Storm.

This city was visited last evening by as fierce a wind storm as has been seen here for years. All day the weather was oppressively warm, scarcely a breath of air stirring, and volumes of big black clouds rolled up from the horizon which were plainly portentous of a coming storm. While they were dark generally, an ugly muddy tinge was given to them in places, and in some portions of the heavens they were again colored by a dull lurid, light, ominous in the extreme. At 6:30 the trees began to sway, away off to the northward, and persons residing where they could have an extensive view in that direction, could trace the incoming of the storm by the commotion it created in its course. Fourth lake was in an instant almost, lashed from a comparative calm into a wild, rushing sea. From the shore mammoth waves, apparently five or six feet high, would surge along before the blast in the most awful fashion for this little lake. They did not seem like ordinary waves, but great, independent volumes of water urged over the surface of the lake by an irresistible propelling force. A few big drops of rain came with the wind, but the latter ruled the time and made nature grand with disturbances. Great, sturdy oaks swayed and groaned, while numberless more delicate trees went down with a crash. Everything that was not pretty stable had to succumb, and reasonably substantial houses, located upon elevated sites, trembled with the shock. The blow continued for about half an hour, when the rain began to descend with more ease, it having before appeared constrained, and the wind subsided.

In all parts of the city, this morning, results of the hurricane can be seen, in the trees that obstruct the walks, the broken limbs that hang from rugged trunks, and the boards that strew the streets. The Presbyterian Church steeple weathered the storm but partially,—a whole panel being thrown across the street, while Reiner's bill boards opposite the STATE JOURNAL office were leveled nearly their entire length. The signs in the business portion of the city were many of them hurled from their fastenings, and this morning adorned the pavements. Twigs were ruthlessly torn from the trees and scattered in profusion over the lawns. The telephonic wires which partially enmesh the city were in many places ripped from the posts and the latter thrown to the ground. At times during the fiercest of the storm, it seemed that general demolition was coming upon us.

The crops in the surrounding country were very fortunately not high enough to sustain any damage. Had the storm have come a few weeks later, it cannot be estimated what loss might have accrued to the farmers.

The storm seemed to be the most severe in the immediate vicinity of this city, and a little to the northward. Fourth Lake received its full force, while Third Lake felt it but comparatively light.

The workmen at the capitol have collected great piles of broken limbs, which were scattered promiscuously throughout the park.

As the passenger train from Milwaukee was bowling along near Watertown during the prevalence of the storm, the lightning struck a telegraph pole alongside of the

track, hurling great splinters upon the engine, and momentarily dazing the passengers.

During the height of the storm, the Solid Comfort was washed ashore at the Insane Hospital farm, on the roadway leading from the hospital to the island. The drenched party aboard,—consisting of Major and Mrs. Oakley, Mr. and Mrs. Wright, of Illinois, Miss Foresman and Mr. M. C. Clarke—made their way to the hospital, drenched to the skin. On the home shore of Fourth lake several yachts were beached.

SATURDAY, JUNE 24, 1882.

This Morning's Storm.

Last evening was a remarkably pleasant one, so much so as to cause almost universal remark. There was then no indication of an approaching storm. A few lazy clouds floated along the horizon, adding much to the beauty of the evening, but not at all portentous of a storm. This morning, however, lightning flashed, thunder rumbled and crashed, and the rain descended in great torrents. The storm set in about six o'clock, and was quite fierce during the early part of its prevalence, but moderating in the course of an hour, so that but little rain fell at seven o'clock. Two or three strokes of lightning, which made the very houses tremble, warned the citizen that the fiery liquid had come in contact with the earth at no very remote distance; and such proved the case. A tree on East Canal, between Johnson street and Washington avenue, was struck and shattered from top to root, jagged slivers being scattered over the ground in a radius of several rods, and the residents of the neighborhood sustaining a severe shock from the concussion.

The most disastrous result of the lightning's work, as far as can be learned, is the burning of the barn which is connected with the Norwegian Seminary, in the Third ward. One of the balls of lightning struck this building at about 6:30, and set it on fire. The alarm bells were sounded, and very soon the fire companies were hastening to the scene of destruction. They had to go so far, though, that when they reached the burning barn, which is located on the lake shore, nearly a mile from the engine houses, its roof was found to be entirely enveloped in flames. They had gotten under such headway, that it was readily seen nothing could be done further than to limit the sweep of the flames to that structure alone. The barn is of brick, circular in form, with basement, which is used for stabling purposes, and one high story above ground, the whole being surmounted by a moderate-sized cupola. The building was thoroughly gutted, the barn walls alone standing when the flames had finished their feast. The fire companies had to do some sharp work to keep the fire from spreading and reaching the institute proper, which they seemed inclined to do, and one of the engines was throwing water until nearly nine o'clock upon the smoldering ruins and the surrounding buildings, in order to preclude all possibility of a more extensive conflagration.

The barn is pretty much a loss, the internal portion being entirely consumed, but the walls remain. There appears to have been no insurance upon it, although the remaining buildings of the same

property were covered. The original cost of the destroyed structure must have been considerable, probably from \$2,000 to \$7,000. It was built in 1855 and was therefore somewhat of an old landmark. The goods stored in the building were nearly all removed, and no loss of consequence accrues on this score.

At about 8 or 9 o'clock this morning, after an abatement of the storm for an hour or so, the heavens became overcast heavier than before and rain descended up to one o'clock, at times very rapidly. At 2 P. M. the sun was shining brightly and the atmosphere was somewhat oppressive.

LOCAL REPORT—12 M.

MADISON, WIS., June 23, 1882.

At the U. S. Signal Office, to-day, at noon, the temperature ranged from 64 degrees to 73 degrees, with south wind, steady pressure and fair weather.

The total movement of the atmosphere in the past 24 hours was 216 miles, with maximum velocity of wind of 48 miles per hour at 8:40 P. M.

Rainfall 0.40 of an inch.

Highest temperature, 87 degrees.

Time.	Bar.	Ther.	Hum.	WIND.		Weather.
				Dir.	Vel.	
June 23.						
2:10 P. M.	29.979	81	82	s	10	Cloudy.
10:10 P. M.	29.932	69	78	e	15	Cloudy.
June 24.						
6:10 A. M.	30.047	68	93	se	4	Clearing.
10:10 A. M.	30.040	72	84	e	4	Fair.

INDICATIONS.

WASHINGTON, June 23—10 A. M. — For the Lake region: Light rains and partly cloudy weather; variable winds, mostly from the southeast to the southwest; slight rise in the temperature; stationary or lower barometer.

How "Probabilities" are Determined.

At the close of our civil war it was decided not to disband our signal corps, which had rendered such useful service in the field. It was organized with a chief, the late Gen. Myer, and consisted of enlisted men, of its chief, and officers temporarily detailed from the line of the army. The services of Prof. Cleveland Abbe, Director of the Cincinnati Observatory, were also obtained as scientific adviser. Prof. Abbe had already organized a Bureau of Predictions at his observatory, and had been for some time publishing in the Cincinnati daily papers the probabilities for the ensuing day. One of the most serious drawbacks with which the service has had to contend has been that it has had to educate its own observers, and has often been compelled to use those who lacked the experience necessary to make their observations of the highest value. Another is the fact that some of the far western stations, remote from lines of railway, have not had their altitudes determined with the required accuracy. The stations are located at points most valuable for the pre-announcement of the direction and force of the great storms coming from the extreme west.

Prof. Loomis, after an exhaustive examination of the Signal Service weather data, has found that nearly all of the great barometric minima came from the Pacific Ocean. The prime object of the American meteorologist, therefore, is to secure the earliest intelligence of the approach of storms on the Pacific seaboard, and to be able to foretell the extent of their development when they shall cross the vast plateaus which flank the Rocky Mountains and parallel ranges. To effect this object Signal Service stations have been established on these plateaus, wherever practicable, the United States military telegraph lines, constructed by the signal service, being utilized for the transmission of reports from these stations.

Vast amounts of data have been and are now constantly accumulating at the central office. These include observed facts relative to pressure, temperature, humidity, rainfall, frosts, winds, clouds, fluctuations of rivers, and many other matters, all of them of highest value in acquiring a complete knowledge of the climate of our country. Their thorough study is a labor of great magnitude, but each year, through their attentive consideration, advances are being made.

The school for instruction for officers and men of the signal service is located at Fort Myer (Fort Whipple), Va. There are two classes, sergeants and privates. The passage from one class to another is by examination. The course of study embraces theoretical instruction in military and international signaling; in the use of cipher codes; in military surveying; in topographical mapping; in the uses of electricity; in telegraphy; in telegraphic construction (land mines and cables); in meteorology; in the conduct of stations of observations, and in military duties. During the year ended June 30, 1891, 13 officers and 131 enlisted men were under instruction at the school. The benefits resulting from the school, as one of study and practice, in which men are trained to be at once soldiers and students, have been recognized throughout the United States, and this course of instruction alone makes it practicable to put on station duty and in charge of stations those who have been taught and tried, and so are known to be fit for the labors and responsibilities imposed upon them. At each station one or more of these observers is placed. In 1870, the first year of the service, there were 24 of these stations; in 1871, 55; in 1872, 65; in 1873, 79; in 1877, 109, etc., etc. The duties of the observers are briefly as follows:

At stations forwarding telegraphic reports they are required to take, encipher, and telegraph tri-daily, at fixed hours, the result of observations made at those hours, embracing the readings of the barometer, thermometer, hygrometer, anemometer, anemoscope, and rain gauge; the amount, kind, and direction of upper and lower clouds, and the condition of the weather. These observations are taken simultane-

ously at all stations at the hours of 7 A. M., 3 P. M., and 11 P. M., Washington mean time. Two additional observations are taken at 11 A. M. and 7 P. M., and also one at the exact hour of sunset, but are not telegraphed except when specially required. At cautionary signal stations an observer is constantly on duty to receive orders and display signals, in case of necessity. At river stations the depth of water is observed and reported by telegraph at a fixed hour each day. In cases of threatening storms or dangerous freshets observers make hourly reports, if necessary. The office of the chief signal officer is the center to which all the reports from the various stations of the service tend. Here they are discussed, elaborated, and made of practical value. Here are also concentrated the reports from 582 voluntary civilian observers on this continent, and from 306 observers in foreign countries. The co-operation of the natives of the United States, Great Britain, Sweden, Italy and Portugal in the taking of meteorological observations adds largely to the amount of data received.

The total number of daily reports, of all kinds, now received at the office of the Chief Signal officer is as follows:

Signal Service telegraphic reports.....	247
International simultaneous reports.....	521
Voluntary observers' reports.....	394
United States Army Medical Corps' reports.....	88
United States Naval Observers' reports.....	30
Total.....	1,226

As no report received fails to secure attention and study, some idea of the magnitude of the labors of the force on duty at this office, in this branch alone, may be gathered from these figures.

At boards of trade and other similar places large maps are displayed, on which the daily meteorological conditions throughout the country are shown by changeable symbols. Special bulletins conveying warnings of storms, details of marine disasters, etc., are publicly displayed as occasion may require. With the co-operation of the postoffice department, the plan of exhibiting as widely as possible in the agricultural districts the printed forecasts of weather, in the form of a farmer's bulletin, meets with increasing success—6,673 of these bulletins being distributed to as many postoffices daily, except Sunday. In addition to the weather synopsis and forecasts printed on this bulletin, it contains condensed notes relating to the climatology of the different sections, the rain and dry winds for each month, for the geographical district in which the bulletin is displayed, and diagram showing the cyclonic and anticyclonic movements of winds. The railway bullet service is also a rapid and excellent means of disseminating the weather indications issued. The reports are received by telegraph at 1 A. M. daily, and are distributed under the direct supervision of the superintendents to designated stations along the lines to the total number at this time of about 8,000 stations. These reports are immediately displayed for the public benefit.

Imperfect as the system is admitted to be, yet its results are wonderful in their application to human industries. In brief, there is scarcely a class of industry of all those which employ our population but derives aid, to a greater or less extent, from reliable provision of the weather. The display of cautionary signals on the Atlantic seaboard and the great lakes has been productive of magnificent results, and it may with safety be asserted that the saving in vessels and cargoes on the great lakes and on the coasts resulting from the present system of cautionary signals, is not less than \$2,000,000 per year.

The value of the signal service to agriculture, as well as commerce, has been so perfectly demonstrated that whatever is necessary to enhance its usefulness should be done. What is needed is to give the corps a distinct and permanent organization, divorce it from politics, and make it an independent branch of the military service, appointing officers from the army or civil life, whose positions shall be permanent, for those who have had the longest study and experience are most competent to perform the duties.

The Coldest Weather on Record.

The coldest weather which is recorded to have ever been experienced in this locality has prevailed for the past two days. The minimum point reached by the mercury in the standard thermometer at Washburn observatory, Saturday night, was 29° below zero, and last night 29½° below; at the signal office in the Brown building, at the corner of Pinckney street and Washington avenue, however, the standard thermometers indicated a minimum depression of 30° below, both Saturday and Sunday nights. The difference in the temperature between these two points is owing, it is thought, largely to the fact that the thermometers at the signal station are removed from the earth a height of two stories and are therefore not subject to surface influences. While there was not a degree of difference between the temperature of Saturday night and that of last night, Sergeant Shaw, of the signal office, says that the coldness of last night was very much more intense than that of the preceding evening, for the reason that upon Saturday night the mercury fell from -16° to -23°, a difference of 7°, while last night at dark it was 19° below and this morning 22° below, a difference of but 4°. There was a continuous, steady pressure of cold noticeable last night that made itself felt very keenly, the frigid air appearing to penetrate to every possible nook. At the warmest time yesterday, the mercury was at 7° below zero at the signal station and this seemed decidedly cold by reason of the wind which blew at an average of fifteen miles per hour throughout the day. However, the temperature should be judged by its nature at the earth's surface, where humanity more frequently comes in contact with it, and not at an altitude of forty feet or more. At the surface yesterday, there was not a time when the thermometer indicated less than 12° or 15° below.

In consequence of the extreme and continuous cold, the trains upon the railroads have all been behind time to-day, from one to five hours, the Northwestern company having a bulletin up at noon stating, "no trains from the north or south," while among minor effects which have been caused may be mentioned the bursting of the plumbing work in the State bank, the total inability of the steam heaters in the First National bank to supply sufficient warmth, and the cracking of water-pipes in numerous places throughout the city.

The wind, as stated above, blew at an average rate of fifteen miles per hour, while the maximum speed reached was twenty miles, and the total velocity up to 10 o'clock last night 268 miles.

The first intimation which was received here of the approach of the cold wave was from Buford, last Thursday evening, when it was announced that the mercury was 38° below zero. The wave swept over the country slowly, and tended eastward, with a slight southerly inclination.

The coldest weather ever before experienced in Madison, of which there is any record, was in January, 1884, when

the thermometers indicated 39° below zero. In December, 1872, the mercury descended to 23° below; in January, 1875, to 25° below; in January, 1881, to 20° below; in December, 1880, to 21° below; in January, 1879, to 23° below; in January, 1878, to 9° below; in January, 1877, to 18° below; in December, 1876, to 22° below.

At Minnedosa, just north of the line between the British possessions and the United States, the mercury was at 50° below zero last Saturday. At St. Paul, this morning, it was 23° below, and at La Crosse this morning it was 28° below, and at Moorhead, 35°, but the latest indications from the northwest, it is exceedingly pleasing to state, are in favor of more moderate weather.

Yea, but it is very nearly right this time. His predictions for this month were: "January, 29th, colder weather with storms; 23d, great snowstorm; 24th, cold; 25th, gale and very cold weather; 26th, intense cold continues; 27th, zero; 28th, still cold, but moderating; 29th, foggy and much milder; 30th, mild weather; 31st, bright and keen; 1st, fair, cold, and windy; 2d, mild, with snow flurries."

The Chicago Tribune, in a lengthy editorial, makes a just complaint against the signal service bureau, for taking all the thermometrical and other meteoric observations, not from a level where men live and move and have their being, but from the upper stories of buildings eighty or one hundred feet above where most men breathe the air. There are several degrees variation between these heights and the ground, and for all practical purposes the observations might as well be taken from any other places from that specified. There is never any agreement between the signal service thermometers and those kept by individuals, and if the present plan is to be adhered to, the signal service officers should give the amount of variation between theirs and the true places of observation, so that common people might know somewhere near the true degree of heat and cold.

FALSE WEATHER REPORTS.

There is a bureau connected with the Government called the signal service. It is maintained at a considerable expense to the taxpayers of the country, and is supposed to furnish the people with reliable meteorological information. The officers connected with this bureau are selected for their alleged scientific knowledge, because the service is scientific in its character. They are supposed, therefore, to furnish strictly scientific information, but they do not, for science is synonymous with truth, and the information which they furnish in regard to the temperature of the weather is not truth, and the predictions which they make are rarely verified. The signal service is as far out of the way as the Treasury Department would be if it made gross errors in reporting the amount of money on hand or the state of the National debt. A Secretary of the Treasury who should persistently falsify his reports would be sharply criticised, and yet this is just what the signal service is doing every day in the meteorological reports furnished the newspaper press.

Take the thermometrical reports for a conspicuous instance. These reports are made from stations perched eighty to a hundred or more feet up in the air. The result is that in winter these airy deluders report the weather from five to eight degrees warmer than it really is, and in summer from five to ten degrees cooler than it really is in the strata where human beings live, and these false reports are furnished every day at great expense to people and great trouble

to persons, which are of no more value than if they were taken at the North Pole. People do not want to know what the temperature is a hundred or a thousand feet above their heads, but what it is at the altitude of six, or seven, or ten feet above the ground. They want to know how cold or how warm it is where they live, and move, and have their being. They do not want to start out in the morning with the assurance of the signal service that the thermometer is above zero to find that it is actually 10 degrees below zero. They care nothing for the weather 100 feet up in the air above them. They don't live at that altitude. If they were busy roasting at night on the tops of tall trees, if they flew instead of walked, or if they lived on the roofs of buildings six or eight stories high, it might be of some importance to them to know the temperature at that height; but people who walk on the surface of the earth want to know what the temperature is on that surface, what the coldness of the air they are breathing and enduring, and that cuts their faces and pinches their ears and fingers, and not the air that is sweeping overhead a hundred feet above them.

Unquestionably these upper-air fellows tell the truth at their altitude, but their reports are false all the same, because they publish these reports as showing the condition of the weather a hundred feet below them. By going still higher they could make still greater differences in temperature, and we presume even then they would make their reports as if they were taken on the surface of the earth. So persistent are they in their efforts to deceive that we have little doubt that if they were perched on the top of Mount Blanc they would insist that their thermometers registered the condition of the weather in the vale of Chamouni at its feet. It appears to be an organized effort on their part to deceive.

It does not appear clear why the thermometer should be reported at all at that altitude, or why people should be called upon to pay a quarter of a million a year for information that is of no value at all to them, but on the contrary is deceptive and injurious. But granting that we must have all this useless lying stuff, then let them be honest enough also to notify the public what the weather is in which they are living or how much they must add to the signal service reports in summer or winter so that people may know how hot or how cold it really is. If they won't do this, then they might as well drop their thermometrical reports altogether, because they are simply truths that mislead the public. Old Proabilities was never caught in the plight in which Gen. Hazen finds himself—namely: that of predicting that a winter would be an open one and finding it to be one of the coldest ever known, with fifteen snow-storms before it is half through. It is an open winter with a vengeance. Everything is open. All the icy gates of the North are open. All the avenues of cold and storm are open. Gen. Hazen himself is open—to the sharpest of criticism for numerous expensive mistakes.

Weather Report.

STATIONS.	Barometer.	Thermometer.	New point.	Wind.	Weather.	Rainfall.
Livingston						
Edmonton						
Bumby						
Landing						
Assiniboia	30.08	-17	-18	n	1/2 Cloudy.	
Boford	30.07	-23	-24	n	0 Clear.	
Blismack	30.04	-21	-21	sw	0 Clear.	
Billings	30.04	-21	-21	sw	1/2 Cloudy.	.08
Deadwood	30.04	-21	-21	sw	1/2 Cloudy.	.01
Harrold	30.04	-21	-21	sw	1/2 Cloudy.	
Minnedosa	30.02	-23	-23	sw	5 Clear.	
St. Paul	30.02	-23	-23	sw	5 Clear.	
St. Vincent	30.02	-23	-23	sw	5 Clear.	
Moorhead	30.02	-23	-23	sw	5 Clear.	
Detulch	30.02	-23	-23	sw	5 Clear.	
St. Paul	30.02	-23	-23	sw	5 Clear.	
La Crosse	30.02	-23	-23	sw	5 Clear.	
Madison	30.02	-23	-23	sw	5 Clear.	
Regina	30.02	-23	-23	sw	5 Clear.	
Winnipeg	30.02	-23	-23	sw	5 Clear.	

